It is the responsibility of the U.S. Army Corps of Engineers to provide appropriate signs and markers at each project to guide, inform, and protect visitors and employees.

This manual has been prepared as part of the Corps Graphic Standards Program and is intended to:

- Develop a sign standard for the Corps.
- Establish standard guidelines for all signage including: planning, use, placement, materials, and maintenance.
- Define the design standard for each category of signs.
- Catalog all standard signs with specifications for procurement.

The purpose of this manual is to provide guidance for effective management of the Corps sign program. Through successful management, the goals of signage are to:

- Deliver a readable and understandable message to the intended viewer.
- Establish a cohesive and distinctive image for all Corps signs. This image is like a corporate "brand" that requires strategic and long-term management similar to any other asset owned by the Corps.
- Establish visual and verbal consistency for signs at each project.
- Increase effectiveness of project management.
- Maximize the effectiveness of each individual sign and the collective statement of all signs placed at a project.
- Reduce overall procurement and maintenance costs.

Overview of Manual

The effective use of signs is an integral part of project management. Both Corps policy and individual project requirements must be satisfied. This manual has been designed to provide the tools necessary to implement the Corps sign program. It sets forth basic principles that govern the design of all signs. It outlines the process by which a comprehensive sign plan is developed: determining the need for new or replacement signs as well as evaluating the effectiveness of existing signs. This manual also provides information on procurement, fabrication, installation, and maintenance of signs.

Where appropriate, this manual incorporates excerpts from existing sign manuals, including: the Federal Highway Administration (FHWA) *Manual on Uniform Traffic Control Devices* for highway signs, and the U.S. Coast Guard (USCG) U.S. Aids to Navigation System.

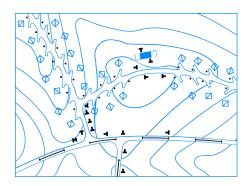
The manual has been organized into three basic, sequential groups of sections.

Group 1. Sections 2-4 provide basic guidelines that apply to all Corps signs.

Section 2 Principles and Guidelines Guidelines for the development of sign messages: descriptions of available materials, explanations of mounting methods, and directions for maintenance procedures.

Section 3
Program Plan and Documentation

Guidelines for developing a comprehensive sign plan for a given project: locating signs, coding them, and preparing documentation of existing and proposed signs.



Section 4
Design Standards

Description of the design elements that are used in the design and layout of signs, including: use of the Corps Signature, letter-spacing guidelines, color standards, and use of directional arrows.

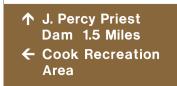


Group 2. Sections 5-18 describe specific types of signs or sign use areas. Each section contains descriptions, layout formats, mounting methods, and specification codes for the sign types included in that section.

Section 5 Identification Signs Standard Identification signs for Corps projects and cooperatively managed areas. Secondary Identification signs for individual facilities within a project, and a Corps Participation Credit Sign for outgranted areas.



Section 6 Directional Signs Signs directing the public to a Corps facility including: Approach Roadway Directional signs and Approach Roadway Directional signs with symbols. Project Roadway Directional signs are used to direct the public within a project. Directional signs using symbols exclusively are described in Section 8.



Campsites 21-40





Section 7 Recreation Area Signs Standard signs for use within an area, including instruction, information and regulatory signs specific to recreational uses. Examples show the various standard grid formats and colors. Traffic signs that are governed by the *Manual on Uniform Traffic Control Devices* (MUTCD) are found in Section 9.





Danger
Submerged
Rocks
No Diving

Section 8 Symbol Signs A display of approved symbol signs and guidelines for their use for Identification, Direction, Prohibition and Area Regulation signs.











Section 9 Traffic Signs General use guidelines, along with a display of the most frequently used traffic signs from the MUTCD. Parking regulation signs, specially adapted for use on Corps projects, are specified in this section.













Section 10 Property Markers Markers used for the identification and marking of government property. This includes witness posts, boundary lines, easement lines, and identification of wildlife management areas.

Boundary Line

Please Do Not Disturb For Information Contact

U.S. Army Corps of Engineers Portland District P. O. Box 2870 Portland, OR 97208 (000) 000-0000



Wildlife Management Area

No Hunting

Please Do Not Disturb For Information Contact: U.S. Army Corps of Engineers Portland District P. O. Box 2870 Portland, OR 97208



Section 11 Workplace Safety Signs All safety signs placed in and around power plants, maintenance shops, and mechanical equipment. These signs are Danger, Caution, Safety, Notice and Directional, and are used in compliance with Occupational Safety and Health Administration (OSHA) Standards.

Danger

High Voltage

Caution

Keep This Door Closed

Safety

Keep Work Area Clean and Safe

Notice

Face Shield Required In This Area



Section 12 Regulatory Signs Rules governing the posting of Title 36 and other general rules. Regulatory signs specific to particular types of public use areas will appear in the section covering those areas. For example: signs adjacent to a boat ramp identifying regulations and restrictions are shown in the Recreation Area Signs section (Section 7). Signs regulating the use of a lock are specified in the Lock, Dam and Waterway Signs section (Section 14).

Shoreline Management Permit

3772

Equiv.

01/06

This permit is non-constructed and may be recorded at any time.

Section 13 Interpretive Signs Informative and educational signage describing manmade, ecological, and conservation systems in a project area as well as historical points of interest to visitors. This section provides design parameters rather than specific sign layouts.



Section 14 Lock, Dam and Waterway Signs Informational, safety, and instructional signs located on or near waterways, locks, dams, and canals.

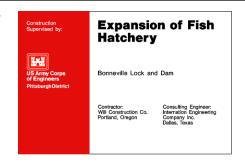






Section 15 Aids to Navigation General guidelines for the use of the *U.S. Aids to Navigation System* established by the U.S. Coast Guard.

Section 16 Construction Project Signs Designs and specifications for Construction Project and Safety Record signs.



Section 17 Outgrant, Cost Share and Concession Signs Guidelines for out-grant and cooperating agency signs placed on Corps property, and design guidelines for commercial enterprises signing on Corps project lands.

Section 18 Office Interior Signs Complete sign system for building interiors.



Group 3. Volume 2 of the manual is made up of Appendices A-E. They contain support reference material including: procurement instructions, fabrication specifications, maintenance procedures, a glossary of terminology, and additional reference material.

Appendix A Procurement Procedures

Explanation of procurement procedures as well as the review process necessary to purchase signs. Also a sample order worksheet with instructions on filling it out.

Appendix B Materials and Specifications

Specifications for materials, fabrication techniques, and installation.

Appendix C Sign Maintenance Procedures Guidelines for maintenance of all project signs. Included is a sample field report and instructions on how to use it.

Appendix D Typography Reference Standards for use of typography on signs. Guidelines are provided for letter-spacing, word-spacing, and legend length sizing for the three Corps typefaces. In addition, there are displays of commonly used words properly typeset and letter-spaced in Helvetica Bold, Helvetica Medium, and Helvetica Regular.

Appendix E Reference Materials Reference materials that support, explain or document the information outlined in this manual. Included are technical standards, a bibliography, a glossary, and a list of suppliers.

How to Use This Manual

use. The purpose of developing a

cohesive look for signs at all Corps

projects and to reduce costs. The

uniform system is twofold: to establish a

system discourages costly, one-of-a-kind

signs. However, should the need occur

for a sign not displayed, there are grids

provided in their respective sections for

procedures. It is important that special

layout purposes. Consult the district

Sign Program Manager for ordering

application signs with site-specific

letter style outlined in this manual.

legends follow the format, color, and

Implementation and management of the sign standards outlined in this manual follow the procedures described below. With each procedure, there is an explanation of required actions, along with page references for the corresponding data in the manual.

Reading the entire manual will provide an understanding of the principles of the Corps sign program. This understanding will be helpful in using the information and instructions outlined for each specific sign type.

The legends used on the signs in this manual have been carefully developed, reviewed, and approved for nationwide

Although every effort has been made to standardize sign legends, individual sign conditions vary from project to project so that the appropriateness of an individual sign to a given setting must be determined on a case-by-case basis as part of the sign plan. The project Sign Program Manager is responsible for making a sign plan for each specific site based on: geography, hazards, audience, traffic, and the uses for each site. Site-specific sign legends will follow the standard sign formats to maintain a uniform and cohesive look throughout a project. The section below outlines the implementation process with page references for the various support materials contained in this manual.

Documentation of Existing Conditions

 All signs currently in place must be inventoried and located on a site map.
 A photograph showing each sign and its surrounding area is recommended. Explanation of documentation process; pp. 3-1 to 3-2.

Sign Inventory Worksheet; p. 3-3.

Example of map; p. 3-4.

Preparation of Sign Plan

- 1) Evaluate the data collected to determine required signs, replacement signs, and unnecessary signs.
- 2) Schedule the removal of existing signs that are unnecessary or the replacement of noncomplying signs.

The principles and guidelines governing the sign standards program; pp. 2-1 to 2-12.

Explanation of sign plan process; pp. 3-1 to 3-2.

Illustrations and descriptions of the signs available for use on a Corps project; pp. 5-1 to 18-21.

Sign Inventory Worksheet; p.3-3.

Example of map; p. 3-6.

Implementation of Sign Plan

- 1) Upon approval of the district Sign Program Manager, carry out the plan by removing unnecessary signs and replacing noncomplying and missing signs.
- 2) Order and install new signs.
- 3) Update project Sign Inventory Worksheet and site map as required.

Sign Order Worksheet; Appendix A.

Material and installation specifications; Appendix B.

Example of implementation drawing; p. 3-6.

Maintenance of Sign Plan

- 1) Inspect the signs on a regular basis to ensure that signs are in place and in good condition.
- 2) Continue to order and install new signs to replace noncomplying signs.
- 3) Evaluate site conditions continually to determine if new signs are required or if existing signs are no longer necessary.
- 4) Review and update project Sign Inventory Worksheet and site map annually or as required.
- 5) Provide routine maintenance of signs.

Explanation of maintenance process; p. 2-12.

Maintenance guidelines; Appendix C.

Every sign in this manual has an alphanumeric code associated with it. The letters in the code show the sign type, and the numbers identify the particular sign within that type.

The Sign Code Matrix below is an example of the charts that appear

throughout the manual to give specifications for each sign. Below the matrix is a chart showing the sign codes in alphabetical order by sign type. The section numbers show where that sign type is described and illustrated. (Note that the sign type UNS, for the eleven "undesignated" safety signs, has been

retained to maintain continuity in existing project sign plans.)

There is a separate chart below showing the codes for custom signs (CST) that use standard grid formats. Note that CST signs differ slightly depending on whether they are to be viewed from land or from the water.

Sign Code Matrix Example

Sign	Legend	Panel	Post	Specification	Mounting	Color
Type	Size (A)	Size	Size	Code	Height	Bkg/Lgd
UNS-11	1.5"	18" x 15.75"	4" x 4"	HDO-5	36"	RD/WH
UNS-11	2"	24" x 21"	4" x 4"	HDO-5	36'"	RD/WH
UNS-11	3"	36" x 31.5"	4" x 4"	HDO-3	36"	RD/WH
UNS-11	4"	48.125" x 42"	4" x 6"	HDO-3	36"	RD/WH

Sign Type

Code	Sign Type	Sec.	<u>Code</u>	Sign Type	<u>Sec</u>
AC-000	Symbol of Access	8	RES-00	Undesignated Restricted	7
APRDIR	Approach Roadway Directional	6	RSID-0	Recreation Symbol	8
APRS-0	Approach Roadway Directional		RSV-00	Facility Reservation	7
	with Symbols	6	SAF-00	Workplace Safety; Safety	11
BLM-00	Boundary	10	SCA-00	Workplace Safety; Caution	11
BTR-00	Boat Ramp	7	SDA-00	Workplace Safety; Danger	11
CID-00	Construction Project Identification	16	SDR-00	Workplace Safety; Directional	11
CMP-00	Campground	7	SECNID	Secondary Identification	5
CREDIT	Corps Participation Credit	5	SLAT-0	Slat System	8
DNG-00	Undesignated Danger	7	SNO-00	Workplace Safety; Notice	11
DRSS-0	Directional Symbol	8	STANID	Standard Identification	5
ENT-00	Entrance Station	7	STANIN	Individual Letterforms	
FDI-00	Fire Danger Index	7		Standard Identification	5
FEESYM	U.S. Fee Area Symbol	7	SWM-00	Swimming Beach	7
HRS-00	Opening Hours	7	TR-000	Trail Marker	7
HSID-0	Hazard Symbol	14	UNS-00	Undesignated Safety	7
HSLAT-0	Hazard Slat Symbol	14	W00-00	Traffic Warning (MUTCD)	9
INT-00	Office Interior	18	WDA-00	Waterway Danger	14
INTERP	Interpretive	13	WLI-00	Waterway Lock Instruction	
NPK-00	No Parking	9		and Information	14
PRJDIR	Project Roadway Directional	6	WPM-00	Lake Mile Marker (Primary)	14
PRK-00	Parking	9	WRE-00	Waterway Restricted	14
PRK-AC	Parking w/ Symbol of Access	9	WRN-00	Undesignated Warning/	
PS-000	Prohibition Symbol	8		Caution	7
PTNR	Corps Identification w/ Partner	5	WS-000	Waterway Symbol	14
	Logo(s)		WSM-00	Lake Mile Marker (Secondary)	14
R00-00	Traffic Regulatory (MUTCD)	9	WWA-00	3	14
REG-00	Regulatory	12	WWSTID	Waterway Identification	14

Custom Signs Using Standard Grids

Custom Recreation Signs with Helvetica Custom Waterway Signs with Helvetica Bold legend (standard letterspace) Medium legend (+30% extended letterspace) CST-04 Grid 1 p. 7-63 CST-01 Grid 1 p. 7-63 CST-05 p. 7-64 Grid 2 CST-02 Grid 2 p. 7-64 Grid 3 CST-06 Grid 3 p. 7-65 CST-03 p. 7-65

Legend Size

The height of the capital letters in the primary legend is also known as A. All dimensions of worded signs will be described in terms of A. The size of the sign legend (A) is determined by the distance at which the sign is to be read. This letter size is calculated using the Viewing Distance Guide (see page 2-6). For symbol signs without worded legends, the signs are built around the dimension of the margin, known as M.



Sign Identification Code System (cont'd)

Panel Size

Built around the length and size of the legend. The first number in the matrix is the panel width, which is based on the longest legend line, plus left and right margins. The second number is the panel height, which is based on the number of legend lines, the size of the legend A, and the spacing between lines. All of these elements are shown on the grid format for that sign type. For catalog signs, panel sizes are fixed and appear in the matrix. For site-specific (custom)

signs such as identification or directional, panel sizes will vary with the legend, and cannot be determined until the typeset legend has been laid out on the format grid. All dimensions are in decimals; a conversion chart is provided in Appendix E. When determining panel sizes, round off all dimensions to the nearest .125 inch.

Specification Code

Refers to the materials and fabrication techniques available for Corps signs as outlined in Appendix B. The specification for a given sign type may vary with the panel size, placement location or intended use. The number on the matrix following the specification code shows the mounting configuration and type of post assembly. Each material and sign assembly method is individually specified in Appendix B.

RRW-00 Routed Signs HDO-00 HDO Plywood Signs ALU-00 Aluminum Signs Individual Letter-forms ICL-00 SCP-00 Screen Printed Signs FRP-00 Fiber Reinforced Polyester IMP-00 Injection Molded Plastic PES-00 Porcelain Enamel/Steel FSM-00 Flexible Sign Markers WTW-00 Waterway Signs

Post Size

Sizes are given for nominal dimensions, not the actual cross section size of the post. For example, a nominal 4" x 4" post may be as small as 3.5" x 3.5", depending on how it is milled.

Mounting

The distance from the ground to the bottom edge of a sign panel, also known as the HAGL (Height Above Grade Level) or HAWL (Height Above Water Level) for waterway signs.

Color

Refers to both the background (Bkg) and the legend (Lgd) as displayed on pp. 4-5 to 4-9.

FHA: Federal Highway Administration

ANSI: American National Standards Institute

BR	Corps Brown	p. 4-5
WH	White	pp. 4-5 to 4-8
BK	Black	pp. 4-5 to 4-8
CR	Communication Red	p. 4-5
RD	Red (FHA)	pp. 4-6, 4-8
ΥL	Yellow (FHA)	p. 4-6
OR	Orange (FHA)	p. 4-6
GR	Green (FHA)	p. 4-6
SR	Safety Red (ANSI)	p. 4-7
SY	Safety Yellow (ANSI)	p. 4-7
SG	Safety Green (ANSI)	p. 4-7
SB	Safety Blue (ANSI)	p. 4-7
SK	Safety Black (ANSI)	p. 4-7
SW	Safety White (ANSI)	p. 4-7
LY	Lemon Yellow	p. 4-8
MB	Medium Blue	p. 4-8
DG	Office Dark Grey	p. 4-9
OD	Office Red	p. 4-9
OL	Office Blue	p. 4-9
OG	Office Green	p. 4-9
WG	Office Warm Grey	p. 4-9

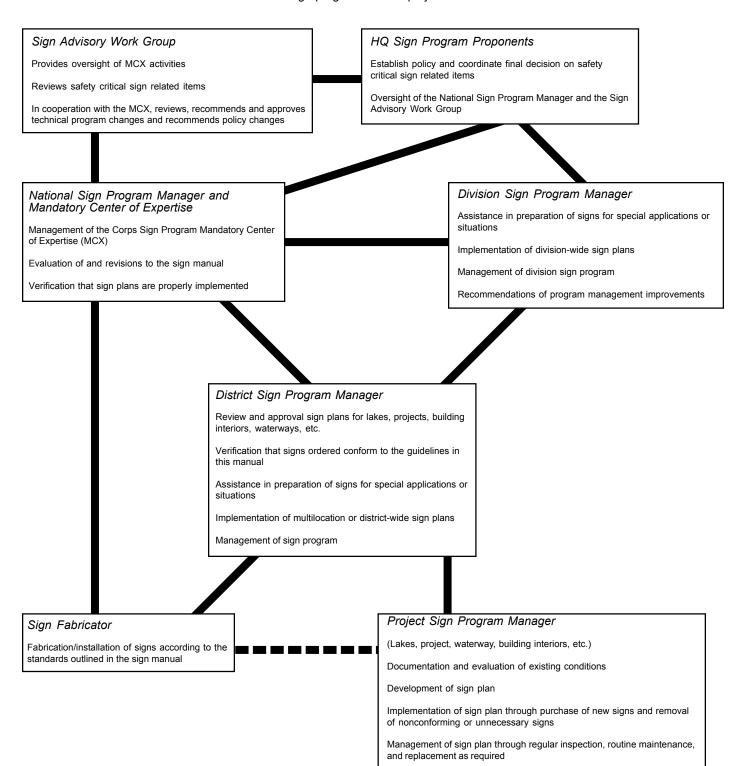
Program management will be the responsibility of trained individuals assigned as Sign Program Managers. There will be a Sign Program Manager for each project. At the district and division levels there will be a Sign Program Manager to review sign planning and program implementation at all projects within that jurisdiction. The National Sign Program Manager will serve as a technical resource for all districts and divisions. The functions

and responsibilities of project, district, division, and national Sign Program Managers are described in the chart below. The qualifications and grade level of the person assigned to this role will vary depending on the size and complexity of the project, district or division. The basic job functions remain the same.

The guidelines provided in this manual will be used to implement and maintain a viable sign program at each project. All

new and replacement signs will be designed and constructed in accordance with this manual. Existing signs that do not conform to these guidelines will be scheduled for replacement on a priority basis

Contact your district Sign Program Manager for assistance or advice when preparing a sign plan, ordering new signs or maintaining existing project signage.



Program Revision Process

The Sign Standards Manual is an ever evolving management tool. Users are encouraged to make recommendations that they feel will improve the overall program effort. Using the worksheet below, submit your recommendation to your district/division Sign Program

Manager. Approved recommendations should be forwarded to the National Sign Program Manager for review by the National Sign Advisory Work Group. Changes in the manual will be made accordingly. Written responses will be provided.

Requested (check appropriate item):	☐ Revision☐ Other	Change	□ Deletion	☐ Addition	
2. Briefly describe action requested. Note Sign Standards Manual page numbers where and how proposed revision is to be used if applicable.					
3. Briefly state reason for recommendation and alternatives tried.					
4. Identify all benefits of change.					
5. Identify all attached graphics and/or					
drawings included to illustrate the issue.					
Prepared by Project Sign Program Manager:	Name		Telephone		
olgii i rogiam manager.	Office		Symbol		
	Address				
	City		State	Zip Code	
Concurrence by District	Name		Telephone		
Sign Program Manager:	Office		Symbol		
Concurrence by Division	Name		Telephone		
Sign Program Manager:	Office		Symbol		

Request Procedure for Nonstandard Safety Signs

When the Sign Standards Manual was developed, project managers identified common safety sign requirements from surveys sent to all districts and divisions. From those surveys, standard safety sign legends were established for clarity and brevity. Specific hazardous conditions may be identified that require a special or site-specific safety sign not included in the

manual. Once this need is identified, a procedure has been established to allow review of the proposed safety legend by the Chief Counsel's office. This process allows Sign Program Managers to make recommendations for additions to the manual. As a national system, specific signs developed by one project or district may be applicable to others. Through

communications, the Corps attempts to reduce potential safety hazards for visitors and others using our facilities. To request a new or site-specific safety sign, fill out the following description of the condition to be signed and the sign(s) proposed to help notify viewers of the hazard.

1. Describe the specific hazard that requires a nonstandard Danger, Warning, or Caution sign. Reference the Sign Standards Manual where applicable. 2. Describe what is currently being done to warn viewers and why this approach is not effective. 3. Identify the proposed sign format and legend. Format (Danger, Warning, or Caution) Legend: Reason for Warning Legend: Specific Prohibition 4. What unique conditions at this location prohibit the use of existing standardized signs? 5. Describe how this proposed sign will be					
warn viewers and why this approach is not effective. 3. Identify the proposed sign format and legend. Format (Danger, Warning, or Caution)					
warn viewers and why this approach is not effective. 3. Identify the proposed sign format and legend. Format (Danger, Warning, or Caution)					
warn viewers and why this approach is not effective. 3. Identify the proposed sign format and legend. Format (Danger, Warning, or Caution)					
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Legend: Reason for Warning Legend: Specific Prohibition 4. What unique conditions at this location prohibit the use of existing standardized signs? 5. Describe how this proposed sign will be					
4. What unique conditions at this location prohibit the use of existing standardized signs? 5. Describe how this proposed sign will be					
4. What unique conditions at this location prohibit the use of existing standardized signs? 5. Describe how this proposed sign will be	Legend: Reason for Warning				
4. What unique conditions at this location prohibit the use of existing standardized signs? 5. Describe how this proposed sign will be					
prohibit the use of existing standardized signs? 5. Describe how this proposed sign will be					
prohibit the use of existing standardized signs? 5. Describe how this proposed sign will be					
5. Describe how this proposed sign will be					
used to address this condition. Attach any photographs, site plans or related visual					
materials that will help to illustrate your					
proposal. State whether this sign will be viewed from land or from water.					
Requested by (office responsible for placing this sign):					
Office Telephone Date					
Approved by (Sign Program Manager); Name Symbol					
Reviewed by, and in concurrence with this request as presented: District Sign Program Manager Telephone Date					
Division Sign Program Manager Date					
National Sign Program Manager Date					
Office of Counsel (CECC-K) Date					
Safety and Occupational Health Office (CESO-P) Date					